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EXAMINER	
MANCHO, RONNIE M	

ART UNIT	PAPER NUMBER
3664	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/719,890	PODSHIVALOV ET AL.	
	Examiner	Art Unit	
	RONNIE MANCHO	3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 August 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-11 and 14-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 4-11, 14-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/14/08 has been entered.

All claim limitations in the response filed 8/14/08 are the same as the claim limitations filled in the actions dated 7/17/06 and 10/31/07. In the action filed 8/14/08 applicant rolled the limitation of claims 2 and 3 into independent claims 1 , 11, and 20. However no new limitations have been filled and all limitations have been previously considered and rejected.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 4-11, 14-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Van Diggelen et al (6813560).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1, 4-11, 14-20, Van Diggelen et al anticipates the limitations in claims 1-20 as the specification contain the exact limitations disclosed in claims 1-20.

Regarding claim 1, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) discloses a method of distributing satellite navigation data, comprising:

processing satellite signals at each of a plurality of reference stations (104_1, 104_2, 104_3, etc; col. 3, lines 31-65) to receive a respective plurality of satellite navigation data streams (ephemeris, col. 3, lines 31-40);

forming packets (col. 3, lines 38-40; col. 4, lines 16-23) in response to said plurality of satellite navigation data streams to generate a plurality of packetized satellite navigation data streams;

sending each of said plurality of packetized satellite navigation data streams to a processing system 108 (col. 3, lines 41-46; col. 5, lines 29-33);

removing (col. 3, lines 41-46), at said processing system, duplicate packets within said plurality of packetized satellite navigation data streams to generate a combined (providing of latest ephemeris for redistribution over the internet i.e. using internet protocol inherently involves generation and combination of packets of data for distribution or transmission; col. 3, lines 41-46; col. 4, lines 16-47; col. 5, lines 29-34; col. 6, lines 15-47) packet stream;

sending said combined packet stream into a communication network (col. 4, lines 24-39; col. 6, lines 15-47);

decoding satellite navigation data within said combined packet stream to generate at least one of ephemeris data, almanac data, ionosphere data, universal time offset data, satellite health data, and raw data bits, wherein said decoding occurs after removing duplicate packets (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28).

That is ephemeris data and other data are first transmitted as a stream of packets by the satellites to the reference stations. After receiving the transmitted packets, the reference stations each combines it own received packets in internet format (i.e. use IP or the internet communication technology) to forward or transmit the packets to a processing system. The processing system removes duplicate packets from the packets forwarded by the reference stations to provide latest ephemeris data. That is, the processing station after removing duplicate packets decodes the received packets to provide ephemeris data. The decoded ephemeris data are further combined as another packet stream using IP or the internet communication technology for transmission to mobile receivers. The mobile receivers use ephemeris data transmitted by the processing system to aid the mobile receivers.

Regarding claim 4, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method

of claim 1, wherein said plurality of satellite navigation data streams comprises global positioning system (GPS) satellite navigation messages, and wherein each of said packets includes a sub-frame of said GPS satellite navigation messages.

Regarding claim 5, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 4, wherein each of said packets includes a header having a satellite identifier and a time-of-week (TOW) value.

Regarding claim 6, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 5, wherein each of said duplicate packets is removed in response to said satellite identifier and said TOW value associated therewith.

Regarding claim 7, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 1, wherein said processing system comprises a hub, and the method further comprises: receiving said combined packet stream from said communication network at a position location server.

Regarding claim 8, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 7, further comprising: decoding satellite navigation data within said

combined packet stream to generate satellite data; and storing said satellite data in a cache disposed within said position location server.

Regarding claim 9, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 7, further comprising: receiving, at said position location server, at least one additional packetized satellite navigation data stream; removing duplicate packets within said combined packet stream and said at least one additional packetized satellite navigation data stream to generate another combined packet stream; decoding satellite navigation data within said other combined packet stream to generate satellite data; and storing said satellite data in a cache disposed within said position location server (see rejection to claim 1).

Regarding claim 10, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 9, wherein said at least one additional packetized satellite navigation data stream is generated by at least one of an additional hub and a reference station disposed proximate to said position location server (fig. 1).

Regarding claim 11, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system for distributing satellite navigation data, comprising:

a plurality of reference stations (fig. 1) for processing satellite signals to receive a respective plurality of satellite navigation data streams and forming packets in response to said plurality of satellite navigation data streams to generate a plurality of packetized satellite navigation data streams (col. 3, 4, 5); and

a processing system for receiving each of said plurality of packetized satellite navigation data streams (see rejection of claim 1), removing duplicate packets within said plurality of packetized satellite navigation data streams to generate a combined packet stream, decoding satellite navigation data within said combined packet stream to generate at least one of ephemeris data, almanac data, ionosphere data, universal time offset data, satellite health data, and raw data bits (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28), and sending (fig. 1, lines 41-46) said combined packet stream into a communication network.

That is ephemeris data and other data are first transmitted as a stream of packets by the satellites to the reference stations. After receiving the transmitted packets, the reference stations each combines it own received packets in internet format (i.e. use IP or the internet communication technology) to forward or transmit the packets to a processing system. The processing system removes duplicate packets from the packets forwarded by the reference stations to provide

latest ephemeris data. That is, the processing station after removing duplicate packets decodes the received packets to provide ephemeris data. The decoded ephemeris data are further combined as another packet stream using IP or the internet communication technology for transmission to mobile receivers. The mobile receivers use ephemeris data transmitted by the processing system to aid the mobile receivers.

Regarding claim 14, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system of claim 11, wherein said plurality of satellite navigation data streams comprises global positioning system (GPS) satellite navigation messages, and wherein each of said packets includes a sub-frame of said GPS satellite navigation messages.

Regarding claim 15, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system of claim 14, wherein each of said packets includes a header having a satellite identifier and a time-of-week (TOW) value.

Regarding claim 16, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the

system of claim 15, wherein each of said duplicate packets is removed in response to said satellite identifier and said TOW value associated therewith.

Regarding claim 17, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system of claim 11, wherein said processing system comprises a hub, and the system further comprises: a position location server for receiving said combined packet stream.

Regarding claim 18, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system of claim 17, wherein said position location server comprises: a processor for decoding satellite navigation data within said combined packet stream to generate satellite data, and a memory for storing said satellite data.

Regarding claim 19, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system of claim 17, further comprising: an additional reference station disposed proximate to said position location server for providing at least one additional packetized satellite navigation data stream; wherein said position location server comprises: a processor for removing duplicate packets within said combined packet stream and said at least one additional packetized satellite navigation data

stream to generate another combined packet stream and decoding satellite navigation data within said other combined packet stream to generate satellite data; and a memory for storing said satellite data (see rejection of claim 1).

Regarding claim 1, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose an apparatus for distributing satellite navigation data, comprising:

means for processing satellite signals at each of a plurality of reference stations to receive a respective plurality of satellite navigation data streams (fig. 1);

means for forming packets in response to said plurality of satellite navigation data streams to generate a plurality of packetized satellite navigation data streams; means for sending each of said plurality of packetized satellite navigation data streams to a processing system (see rejection of claim 1);

means for removing, at said processing system, duplicate packets within said plurality of packetized satellite navigation data streams to generate a combined packet stream (see rejection of claim 1);

means for decoding satellite navigation data within said combined packet stream to generate ephemeris data, after removing duplicates (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28),

means for sending (col. 4, lines 41-47) said combined packet stream into a communication network (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28).

That is ephemeris data and other data are first transmitted as a stream of packets by the satellites to the reference stations. After receiving the transmitted packets, the reference stations each combines it own received packets in internet format (i.e. use IP or the internet communication technology) to forward or transmit the packets to a processing system. The processing system removes duplicate packets from the packets forwarded by the reference stations to provide latest ephemeris data. That is, the processing station after removing duplicate packets decodes the received packets to provide ephemeris data. The decoded ephemeris data are further combined as another packet stream using IP or the internet communication technology for transmission to mobile receivers. The mobile receivers use ephemeris data transmitted by the processing system to aid the mobile receivers.

Response to Argument

4. Applicant's arguments filed 8/14/08 have been fully considered but they are not persuasive.

Applicant argues that the prior art the "ephemeris data" occurs prior to "removing …… duplicate packets". The examiner respectfully disagrees and notes that ephemeris data in the prior art occur both before and after the removal of duplicate packets. That is ephemeris data and other data are first transmitted as a stream of packets by the satellites to the reference stations. After receiving the transmitted packets, the reference stations each combines it own received packets in internet format (i.e. use IP or the internet communication technology) to forward or transmit the packets to a processing system. The processing system removes duplicate packets from the packets forwarded by the reference stations to provide latest ephemeris data. That is, the processing station after removing duplicate packets decodes the received packets to provide ephemeris data. The decoded ephemeris data are further combined as another packet stream using IP or the internet communication technology for transmission to mobile receivers. The mobile receivers use ephemeris data transmitted by the processing system to aid the mobile receivers. Therefore, in the prior art, the ephemeris data occurs before and after the removal of duplicate packets. It believed that the prior art still reads on the claims as in the examiner's answer.

The applicant argues that the prior art VanDiggelen does not disclose "removing, at said processing system, duplicate packets within said plurality of

packetized satellite navigation data streams to generate a combined packet stream; and sending said combined packet stream into a communication network."

The examiner respectfully disagrees and notes that Van Digdelen anticipates "removing, at said processing system 128, duplicate packets (col. 3, lines 40-46) within said plurality of packetized satellite navigation data streams to generate a combined packet stream; and sending (col. 3, lines 40-65, fig. 1) said combined packet stream into a communication network (fig. 1)." The applicant specifically argues that the prior art fails to teach a combined packet stream. The examiner respectfully disagrees. First in the response submitted 7/17/06 applicant admitted at page 4, sections 0013, 0014, that data transmitted over the Internet using internet protocol are in (IP) packets, in other words a combined packet stream or combined stream of packets. The applicant further states that the act of removing duplicates automatically forms a combined packet stream, applicants specification sections 0013-0015. By the same token, the prior art plurality of reference stations 104 collect and process satellite data as ephemeris data (which are in packets). The data is sent to a central processor 108 where duplicates of the ephemeris data are removed (col. 3, lines 31-47). After removal, the data are sent over the internet to mobile users. Therefore, the data sent over the internet using IP protocol are combines (IP) packets (col. 4, lines 16-39). These packets sent over the internet

are a combination of packets which are NOT duplicates of each other (col. 3, lines 31-47). The prior art specifically states that the ephemeris data is a 900 bit packet data. The prior art further states that the duplicates of the 900 bit packet data are removed. The prior art further states that the ephemeris (900 bit packets) are processed to compute pseudo range, pseudo range rate, Doppler frequency offset, etc, including removal of duplicates (col. 5, lines 20-54). After the duplicates are removed, the pseudo range models are packed (col. 6, lines 46-48) again and redistributed over the Internet as combined packets.

Applicant's quotations and citations from the prior art clearly indicate applicant's admission that the prior art anticipates the claims.

Applicant's argument that the claimed invention is drawn to the limitation, "removes without extracting satellite data" is unsupported in the claims. It is not clear what all is meant and encompassed by "removes without extracting satellite data". The meets and bounds of the limitation cannot be ascertained since it is understood that removal and extraction refer to the same process. The sections in Van Diggelen that read on the rest of the claims have been provided above.

Conclusion

5. This is a final of applicant's response filed 8/14/08. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Communication

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RONNIE MANCHO whose telephone number is (571)272-6984. The examiner can normally be reached on Mon-Thurs: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Khoi can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ronnie Mancho

Examiner
Art Unit 3664

10/25/2008
/KHOI TRAN/
Supervisory Patent Examiner, Art Unit 3664